UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/613,720 | 07/03/2003 | Lin Davis | 15828-183001 | 4972 |

26231 7590 05/05/2005

FISH & RICHARDSON P.C.
1717 MAIN STREET
SUITE 500
DALLAS, TX 75201

| EXAMINER | |
|---|---|
| BLOUNT, ERIC | |
| **ART UNIT** | **PAPER NUMBER** |
| 2636 | |

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 10/613,720 | LIN DAVIS OK |
| | Examiner | Art Unit |
| | Eric M. Blount | 2636 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *27 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 December 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. The Office acknowledges the changes made to the specification and claims, all previous objections and 35 U.S.C. 112 2nd rejections have been withdrawn.

### *Response to Arguments*

2. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsuno [U.S. Patent No. 6191695] in view of Tatsuno [JP 57022947].

As for **claim 1**, Tatsuno '695 teaches a fuel dispensing station comprising fuel dispensers, an ignition source detector, and a control unit (Figures 1 and 3). The electromagnetic wave sensor taught by Tatsuno '695 is considered analogous to the ignition source detector claimed by applicant. It is well known in the art that it was believed at the time of the Tatsuno '695 invention, that mobile phones and other electromagnetic wave generating devices were capable of producing sparks and/or

ignition fires (See www.psc.ca/safety_info/safety_alerts/1999/sa99_18.htm, Canadian Petroleum Safety Council, Safety Alert #18). The electromagnetic wave sensor is for generating and transmitting a detection signal indicating the presence of an unwanted ignition source, wherein that source comprises electromagnetic waves (column 2, lines 40-58). Tatsuno '695 teaches a control unit which receives the detection signal and generates a control signal for output to the fuel dispenser, wherein the fuel dispenser responds by inhibiting the dispensing of fuel (column 2, lines 59-65). Tatsuno '695 does not specifically disclose that the electromagnetic wave detector directly detects an ignition source.

In an analogous art, Tatsuno '947 discloses a fuel dispensing station comprising at least one fuel dispenser and an ignition source detector operable to directly detect an ignition source. The ignition source detector taught in this reference is a fire sensor. It is well known in the art that fire sensors are capable of directly detecting ignition sources. It would have been obvious to one of ordinary skill in the art that the detectors taught by both Tatsuno references are interchangeable as both send signals to inhibit the dispensing of fuel at a fuel pump upon the detection of an unwanted source at a fueling station.

As for **claim 2**, Tatsuno '695 discloses a fuel-management unit and at least one communicator, wherein the fuel-management unit receives the detection signal output by the ignition source detector. The fuel-management unit outputs an information signal to inform users of unsafe conditions (column 2, lines 50-58). It is inherent that people are notified of the suspended fuel dispensers.

As for **claim 3**, the fuel dispenser includes a control unit therein, and the detection signals generated when the ignition source is detected is transmitted to the control unit via the fuel-management unit (Tatsuno '695, column 2, lines 59-65).

As for **claims 4 and 5**, Tatsuno '695 teaches that the ignition source detector (electromagnetic wave sensor) may be provided in an area outside the fuel dispensing station where an ignition source would be well sensed, such as a canopy above the fueling station or in each of the fueling units (column 9, lines 40-49). This reasonably meets all of the limitations set forth by the claims.

As for **claims 6 and 7**, Tatsuno '695 teaches that the ignition source detector may be located outside of a fueling station in a location capable of detecting an unwanted ignition source or within a fueling station (column 2, lines 40-49). It is obvious that the ignition source could be located anywhere on, in, or around the fueling station that would provide the desired results. Location of the ignition source detector can be viewed as a matter of design choice.

As for **claims 8, 11, 15, 24, and 25**, Tatsuno '695 does not specifically disclose that the unwanted ignition source comprises a spark, an open flame, or embers. However, as noted above, it was known in the art at the time of the invention by applicant that electromagnetic devices are capable of producing sparks when in the vicinity of fueling stations. The use of these devices ultimately leads to fires or explosions. In Tatsuno '947 a fire sensor is used to detect unwanted ignition sources. It was well known in the art at the time of the invention by the applicant that fire sensors may comprise different types of detectors including IR flame detectors (please refer to

patents cited on PTO-892). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to incorporate the fire sensor, including well known components as taught by Tatsuno '947 into the system because a the incorporation of the fire sensor would result in a system more capable of detecting and preventing several types of fire hazards at a fuel station.

As for **claim 22**, Tatsuno '695 and Castleman et al have met all of the limitations. Please see all claims above for a further explanation of the rejection.

As for **claims 9, 10, and 12**, Tatsuno '695 discloses that the fuel dispenser temporarily suspends fuel supply in response to a control signal from the control unit. A communicator is provided for outputting a sound and/or light signal. The ignition source detector taught by Tatsuno '695 is an electromagnetic spectrum detector (column 2, line 40 – column 3, line 10).

As for **claim 13**, it has been shown above that Tatsuno '695 teaches all of the limitation of the claim. Please see the claims above.

Regarding **claims 14 and 21**, Tatsuno '695 discloses a method of detecting an unwanted ignition source, communicating the detection of the ignition source to a customer or other personnel, and suspending the delivery of fuel in response to the detection of the ignition source (column 2, lines 25-58). Tatsuno '947 discloses a method of directly detecting an ignition source (see claim 1).

As for **claims 16 and 17**, it has been shown above that Tatsuno '695 teaches all of the limitations of the claims. Please see claims 9 and10 above.

Regarding **claims 18, 19, 23, and 26**, disclosed is a step of detecting the absence of an ignition source, and resuming the delivery of fuel in reaction to the detection of the absence of an ignition source (column 5, lines 24-37). Tatsuno '695 teaches a re-fuel switch that can be used by a customer or personnel to resume the dispensing of fuel. Tatsuno '695 does not specifically disclose that the resumption of fuel delivery automatically takes place in response to a non-detection signal. However, upon receiving non-detection signal a user should use the re-fuel switch to resume fueling operations. It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant that re-fueling operations could be initiated automatically or manually. The automatic operation might be done to eliminate user error and provide a smoother transition back into the re-fueling operation.

As for **claim 20**, it would have been obvious to one of ordinary skill in the art at the time of the invention that the re-fueling switch taught by Tatsuno '695 could be provided anywhere at a gas station. One might want the onsite personnel to control the re-fueling switch so that users located near the ignition source could not attempt to restart the re-fueling operation while an ignition source was still present.

As for **claim 22**, the Tatsuno references have met all of the limitations. Please see all claims above for a further explanation of the rejection.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Though not used to make art rejection, Duran, Murao, Ichikawa

et al, and Seki et al, each disclose fire sensors that comprise several components, including flame detectors.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Blount whose telephone number is (571) 272-2973. The examiner can normally be reached on 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric M. Blount
Examiner
Art Unit 2636

***

JEFFERY HOFSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600